

May : but it was not my fortune to see them sooner ; which if I had, I might have been able probably to have made my account better. But notwithstanding it is imperfect, it may, I hope, introduce better from others : or however be a testimony of my great Veneration for the August Royal Society, and obedience unto the commands thereof, who at one of their Meetings some time since, were pleased to desire me to procure, or give an account of this matter.

IV. *Some Observations concerning the Invention and Progress of Printing, to the Year 1465. Occasioned by the Reverend Mr Ellis's Letter, exhibited in Phil. Trans. No 286. Pag. 1416.*

WHat this Gentleman says about the Books Printed at Harlaem by Laurence Koster, agreeing so well with the account given by Theodore Schrevelius and others, leaves us little or no room to doubt (whomust needstake it for granted that his Observation is accurate, and the Dates to be true ;) whether the Honour of the Invention be due to *this* or the other Cities, whose Writers have so eagerly contended for it ; since none of them have pretended to shew any Book Printed so soon as *A. D.* 1430 or 1432, or near that time. But the difficulty lies, either in shewing why the Practice of this Art should be at a stand from *A. D.* 1432. to the noted Reviving of it at Mentz by John Fust and Peter Schoeffer, who (as it has been vulgarly, but erroneously said) did Print the first Printed Book there *A. D.* 1465. namely, *Tully's Offices* ; or else, in giving any tolerable account of the Progress of this Invention during an Interval of above 30 years.

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Boxhornius (as I remember) as well as *Schrevelius* and other Authors, do expressly say, (and if they had not, it might well be imagin'd) that *Koster* could not advance this Invention so far, as to Print so large a Work as the *Speculum Salutis* without gradual Improvements ; and that his first Essays were on loose and small leaves of Paper, before he attempted whole Books. These being loose and single, are suppos'd to be all lost : but I once observ'd a loose leaf of Paper in *Octavo*, lying in an old MS. *Breviary* in her Majesty's Royal Library at *St James's*, which I then thought (and am still in the same opinion) that 'twas one of *Koster's* first Pieces ; done when he had attain'd to some Experience in the Art, and to get Money. 'Tis a little rude Wooden Cut, of the five Wounds of our Blessed Saviour, and the Instruments of his Passion, with a *Latin* Inscription at the bottom, to this purport, that Those who should say so many *Ave Maria's* before it, should have so many thousand years of Pardon. In this Cut or Print, the Ink which made it was *Writing Ink*, and 'twas all Black, without those other Colours with which *Koster* seems afterwards to have adorn'd his Books.

In the abovementioned *Boxhornius's* Book *de Origine Artis Typographicae*, 'tis said, that *Hadrianus Junius* had a Book Printed by *Koster*, and like that kept in the Chest at *Harlaem* : Now amongst those Bequeath'd to the *Bodleian Library* at *Oxford*, by Mr *Francis Junius* (who was a Kinsman of *Hadrian's*) there is a thin Book in a small Folio (Numbred 31.) which may probably be the same ; and which Mr *Foss*, a learned and curious *Danish* Gentleman, did assure me was very like to that at *Harlaem*. This contains the Sum of the *History of the Old Testament*, all represented in rude Wooden Cuts, colored with divers colors, without *Shadows* like to our *Cards*, (which, with *Sheet-Ballads*, are remains of the old manner of Printing,) and Stamp'd upon one Side only ; the white sides of two Leaves being pasted
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together ; the Black both in the *Pictures* and *Inscriptions* which shew the meaning of them, being * *Writing Ink*, (as the aforesaid Leaf) inartificially spread upon the Wooden Block ; here thick, there thin ; spreading and yellowish ; the Letters extremely rude, and all together manifestly shewing that the Art was yet in its Infancy. The Stamping of this Book on one Side only, was not (as some think) because the *Printer* did not know how to dispose the Pages in such manner, as might be proper and easy for the *Book-Binders* use ; for it has its *Signatures* all along in *Minuscule Letters*, (set in the middle of the Page, which is remarkable ;) but because it was thought that the Paper would not bear a second Impression on the back side ; just as the *Book-writers* of those times (when Paper began to be cheap, and to be made up into Books) would yet have the first and last Leaf of each *Quaternio*, *Senio*, &c. to be of *Parchment* for strength's sake. This Book (as I remember) is imperfect, and has no *Date* now appearing, and perhaps never had any ; neither has such another Book as this, which contains the *History of St John and the Apocalypse*, in such like wooden coloured Pictures and Inscriptions. This is inscribed *L A U D. E. 65.* in the same *Bodleian Library*, and has its *Signatures* also in *Majuscule Letters* (as indeed I have observed *Signatures* in many MSS. of different Ages, as high as 1000 years ago and upwards, expressed either by *Letters* or *Numbers*.) This Book, tho Printed on one Side, and Pasted as the former ; is yet more elegant, and shews that the Art was much improved. And here it may not be impertinent to observe, that in the same Library (*Arch. B. Bodl. 88.*) is an antient MSS with the same *Figures* and *Inscriptions*, tho the *Habits* of the Figures be different, those of the MS being of the older Fashion, and 'tis

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* It is to be wish'd that Mr Ellis, when he had Koster's Books in his Hands, had observ'd whether the *Black Ink*, was *Printing Ink* or not ; whether Koster's Picture was antient, and colour'd or not ; or if there were more in either of the Books ; whether the whole was Cut upon Wood, or Compos'd with *Printing Letter* ; whether there were *Signatures* for the *Book-Binders*, &c.

very likely that there is another Copy of this Book in the Emperors Library at Vienna; for *Lambeckius, Comment. de Biblioth. Cas. Lib. II. Pag. 772.* reckons amongst those which he brought away from the Archiducal Library at *Innspruck*, a Book of which he gives this Account, *Apocalypsis S. Joannis Apostoli & Evangelistæ Latino Germanica, chartacea in folio, una cum Vita ipsius, & nullis figuris ligno incisis, quæ propter vetustatem suam spectatu sunt dignissimæ*, and in this Book at *Oxford*, besides the Printed Cuts, also a *Commentary* upon the *Apocalypse* in *High-Dutch*. Besides these two most antient Printed Books, Mr *Bagford* told me that in the *Manuscript Library* of *Corpus Christi* or *Bennet College* in *Cambridge* he saw a third, containing the *History of our Saviour*, Printed on one Side only of the Paper, with such like Wooden Cuts; but yet more neatly than either of the former, which I had before shewn him at *Oxford*. And these three Books, being as is before said, Stamp'd but on one side of the Leaf; the whole wrought or cut upon Wood; not Set or Composed with Printing Letter; and Printed with Writing Ink; do sufficiently demonstrate that the Art was as yet in its Infancy; and may, tho they bear no Workmons Name, be very reasonably ascribed to *Koster*, not only because no body else lays claim to 'em, but because in divers Circumstances they agree with the History of the Man, and with what remains of his Workmanship. If it be asked why *Koster* did not set his Name, and the Year to these Books, as well as to that at *Harlaem*, mentioned by Mr *Ellis*? It may be answer'd, that *Schrevelius* tell us that *Koster* bound *Fust* above-mentioned, by Oath to secrecy, and not to betray the Art to any person whatsoever. Wherein 'tis likely, that his design was not so much to let the World think, that he had a new way of multiplying the Copy of a Book much quicker than the quickest Penman; but that he designed to impose upon the World, by selling his Printed Books, for New-Written Copies, whereby the Book-Writer and Illuminator must (as he might well pretend) be so paid
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for their Work, as to maintain themselves and Families. This Trick might be long undiscovered in and about *Harlaem*, because there was no other Printing, whereby this might be condemn'd; but at length, as *Boxhornius* and *Schrevelius* write, *Fust* ran away with all his Masters Tools and Materials, and in Process of time set up a Printers Shop at *Mentz*, being assisted by his Servant *Peter Schoeffer* (a Young Man of a good Genius) who afterwards Married his Daughter, and became his Partner in the Business. The Story goes, that this *John Fust* went to *Paris* (but whether before or after his settling at *Mentz*, I cannot tell :) and that he there offer'd a great number of *Printed Bibles* to sale, as if they were *Manuscripts*. But the *French* were not to be so caught. They considered the number of these Books, and their exact conformity to one another throughout the whole, to a Line, a Word, a Letter, a Point, and that the best of *Book-Writers* could not be thus exact, and therefore by Indicting him of *Diabolical Magic* (or threatening him with it) they at once gave birth to the Story of *Doctor Faustus*, and caused him to discover the Art. And I doubt not but about this time, very many Books were Printed and Sold for Manuscripts, I having seen divers such Books without Dates, which look'd rather older than any I have seen with them. I speak now of those that are Set or Compos'd of *Letter*; which with *Printing-Ink* of Lamp-Black and Oyl, and the *Printing-Press*, is said to be the Improvement of *Schoeffer*, above-mentioned, tho *Schrevelius* with less reason ascribes the two former to his Countryman *Koster*.

When *Fust* and *Schoeffer* began first to Work at *Mentz* is uncertain, but the first mention I find of him, as a Printer at *Mentz*, is in *Schrevelius*, *Harlem* pag. 272. where he says that this *Fust* (or *Faustus* as he call's him) published *Alexandri Doctrinale cum Petri Hispani tractatibus* A. D. 1442. but this and some other Books mentioned by Writers on this subject, are never said to be extant in any particular place, in order to be consulted upon occasion; and therefore their *Titles* and

and *Dates* are not so much to be relied upon. But another *Date*, which tho not so *Old*, is more *Authentic*, may be found in the above cited Book of *Lambecius*, Pag. 989. where he says he brought away from *Inspruck* amongst other choice *Volumes*, and placed in the *Imperial Library* at *Vienna*, a *Psalter* Printed upon *Parchment*, with this Inscription at the end, *Præsens Psalmorum codex venustate Capitalium decoratus, Rubricationibusq; sufficienter distinctus, ad inventionem artificiosam imprimendi ac characterizandi, absque calami ulla exaratione sic effigiatus, & ad ensibiam dei industrie est consummatus per Johannem Fust, Civem Moguntinum, & Petrum Schoeffer de Gernsheim, anno Domini millesimo CCCCLVII. in Vigilia Assumptionis.* From this time there are constant Remains of the Industry of these Men, and I can mention more Books Printed by them, than the *Durandus* (in the Library of *Basel* in *Switzerland*) Printed (as a Gentleman who saw it, told me) *A. D. 1458.* *Joannes Joannensis's Catholicon* (in her Majesty's and the Lord Bishop of *Norwich's* Libraries,) Printed 1460. The *Latin Bible* of 1462, yet extant in the *French Kings* Library, and in divers *Monasteries* beyond the Seas, and perhaps in *England*. The *Tully's Offices* Printed both in 1465 and 1466, (if both these be not the same Edition, the last Sheet or Leaf being Compos'd afresh :) and so on till *Schoeffer* work'd for himself after the Death of *Fust*, and *Schoeffer's* Posterity after him. But I willingly forbear the Catalogue, in hopes that this, with that of the other old Printers throughout *Europe*, and especially of our *English Workmen*, with their *Devices*, the *Effigies* of most of them, and a multitude of uncommon Remarks relating to *Writing*, *Printing*, *Parchment*, *Paper*, *Binding*, &c. will be communicated to the World, when *Mr Bagford's* Papers shall be digested ; nor do I think it ingenuous or honest to prevent him in these his Labors, which have cost him so many Years Pains.

A word or two more I take leave to add, that upon the first discovery of the Art by *Fust* at *Paris*, or at his first
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Settlement or publick Profession of it at *Mentz*, it quickly spread over the best parts of *Europe*, * and was commonly used in other Countries before 'twas known in *England* (notwithstanding what some Writers do affirm to the contrary;) the first Book that we pretend to have been Printed here, being *Hierome* (or rather *Rufinus*) on the *Creed*, Printed at *Oxford*, A. D. 1468.

From these Places, and from Books, or parts of Books, where, or wherein such sorts of Letter was used, the Printers do still call their Letter, *Italick*, *Roman*, *English*, &c. *Austin*, *Cannon*, *Pica*, *Primer*, *Brevier*, &c.

To prove this in some measure (not to mention the progress of *Printing* in other Countries) I instance in *Italy*, and particularly *Rome*. Here, not to insist on the large Catalogue of *Printed Books* described in an Epistle to Pope *Xystus IV.* Published at the beginning of the *V. Tome* of the *Bible* printed with *Lyra's Commentaries* at *Rome*, A. D. 1472, and transcribed by *Boxhornius*; I shall only relate the sum of what I meet with in *Bernard Mountfaucon's Diarium Italicum*, Tom. 1. page 255, 256. 'Tis that *Joannes Aleriensis*, in a flattering Epistle to Pope *Paul II.* (who was elected A. D. 1464.) congratulates him, because *Printing* was first us'd at *Rome*, under his Pontificate. Which if spoken of the very first practice of the Art at *Rome*, and not of an established Imprimery, seems to be false, because this learned Monk, in the same place, says he saw a *Lactantius* in the *Museum* (or Study) of *Monsieur de la Thuilliere*, which has these words at the End, *Lactantii Firmiani Institutiones cuse in venerabili Monasterio Sublacensi anno 1461. antepenultima Octobris*. Now unless a man will suppose *Printing* to be invented in this Monastery, he must believe it to be brought hither from *Rome*, which is but about 20 Miles distant from it. And the same Author says, that *Floravantes Martinellus* in his *Roma Sacra*, affirms that *Printing* was practised at *Rome* in the Palace of the *Maximi*, A. D. 1455, under Pope *Nicolaus V.* by *Conrad Sweynheim* and *Arnold Pannartz*, who were both *Germans*, and continued *Printers* there for many Years after.

The Custom of putting the *Dates of Printed Books* at the End of them, was taken up in Imitation of divers the middle-aged and recenter Manuscripts (for I never saw or heard of any antient Manuscript in *Capital Letters*, either *Geeek* or *Latin*, which has a *profess'd Date* written in the *first hand*;) but here the Inspector ought to be cautious, lest he be led into an Error : For several Manuscripts at the End have a Date, which may be by some understood of the time when those individual Copies were *written*, whereas they only notifie the time when the *Author finish'd his Work*. And some of these Dates, being printed from the Manuscripts, have deceived many curious men. For Example, the first Edition of *Lyndwood, Paulus a Sancta Maria*, and others which I could name. Besides, some Dates in antient Printed Books, being not corrected, are false; such as a Book printed in the beginning of the 16th Century, in the Library belonging to the *Ashmolean Museum* at *Oxford*, which thus pretends to 400 or 500 years of Age. A *Julius Hyginus* once shewed to me by Mr *Millington* the Bookseller, printed at *Paris* (as there put down) *An. Dom. MCCCCXII.* instead of MCCCCCXII. For the Printer is mention'd as then living in *l' Origine de l' Imprimerie de Paris*. I have indeed a Book wherein, amongst other Tracts, is one of an old Print, at the end of which there seems to be such a Mistake, tho not so easily rectified as the former. The words are these, *Explicit opusculum Enee Sylvii de duobus amantibus in Civitate Leydensi Anno Domini Millesimo CCCC quadragesimo tertio* L E I E N. Now tho' *Leyden* seems to be the place where 'twas printed, yet 1443 cannot be the time when; for just before *Sylvius* says himself, *Vale, ex Vienna quinto Nonas Julias Mo CCCC quadragesimo quarto.* *Sylvius* was elected Pope by the name of *Pius I.* A. D. 1458, and died A. D. 1464. Now it may seem probable, that if this Tract was printed after his Election (as suppose A. D. 1463.) or even after his Decease, his Papal Dignity might have been remembred; If it be judg'd to have been

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printed before his Election, I know none that will allow of Printing at *Leyden*, (or even in *Lyons*) so very early.

One Objection may be urg'd against what is said of *Koster's* or the old printed Books above-mentioned, being printed upon Paper about *A. D.* 1430, or soon after. For some Authors are of opinion, that Paper made of Linnen Rags was first made at *Basil*, by some Greeks who fled out of their Country after the Saccage of *Constantinople*, *A. D.* 1452. in Imitation of the *Cotton Paper*, commonly used in the *Levant*. But this can have no force, our Paper being much older: For I have a piece, the Writing upon which seems to be about 350 years old, and agrees very well with a Charter which I have seen of *Thomas Beuchamp* Earl of *Warwick*, bearing date *A. D.* 1358. and 32 *Edw* III. In the Archives of the Library belonging to the R.R. Dean and Chapter of *Canterbury*, I saw an Inventory of the Goods of *Henry* Prior of *Christs Church* there, taken upon his Decease, (as I remember) the 20th year of *K. Edward* III. and this is written upon Paper. In the *Cottonian* Library, tho' searching after other matters, I could not but observe several Writings upon our Paper, in the time of most of our Kings and Queens, as high as the 15th of *K. Edward* III. and I doubt not but that there are others more antient in the same place. But in the *East*, the use of *Cotton Paper* is much more antient, and I have in the *Bodleian* Library, seen an *Arabick* Manuscript (amongst those which the University bought of *Dr Huntingdon*) written in the 427th of the year *Hegira*, i. e. *A. D.* 1049, and others in the same place without Dates, seem older.

The Proximity of the subject, causes me here to take notice, that tho' the Invention of the *Rolling Press* is commonly ascribed to *Lipsius*; yet it seems older than his time, from a printed Book in the *Bodleian* Library, placed *LAVD. D.* 138. This is a *Missale secundum usum Ecclesie Herbipolensis* (i. e. *Wurtzburg in Germany*.) *Rodolfus* Arch Bishop of that Church sets forth in an Instrument at the beginning of the book, the reasons why he caused this Missal to be published, which Instru-

ment bears date the 8th of *November 1481*. by which time he orders all the Copies to be finished by *Jorins Ryser* his Printer, who seems to have done so, since his Name, and this Year 1481, is written at the end of the Book. instead of a Seal to this Instrument is an *Engraven Print*, being the *Arms* of the *See* supported by 2 Angels, and *St Kilian* (its first Bishop and Protector) behind; as also this Prelate's own Arms with those of the *See* in another *Escutcheon*, and a very fine *Mantling*. This is extremely well engraven for the time, and equals the performances of some of our best Workmen at present. The evident marks of *pressure* by the *Plate*, with some touches of *Ink* at the *Edges*, the *roughness* of the *Print*, and other Circumstances concurring, I thought this must needs be wrought off at the *Rolling-press*. But being unwilling to rely too far upon my own Judgment, I shewed it to divers very knowing and curious Gentlemen, to several *Printers*, *Engravers*, and others working constantly at the *Rolling Press*, who all concurr'd (tho at different times, one not knowing what another had said) that 'twas not only excellently well engraven (and this before *Albert Durer's* time) but that it was certainly pull'd from the *Rolling-Press*, and could be done no other way. And that this *Print* was not done after that time, appears from several Notes written here and there in the Book. One of them specifies that *William Kewsth*, Vicar of *St Bartholomew's Church* in *Wurtzburg*, bought this Book the same year, 1481, paying 18 *Florins* for the *Parchment*, *Printing*, *Rubrication*, *Illumination* and *Binding*. By another it appears, that he gave it to his Church for ever. And by some others it appears that it remained there during the times of his several Successors, till the last Age, when, as I suppose, the *Swedes*, under *Gustavus Adolphus*, plunder'd the Church, and brought it out.